File copy

MEMORANDUM

INTERMOUNTAIN POWER SERVICE CORPORATION

TO: File, IGS91-3

FROM: Cecil James

DATE: April 28, 1992

SUBJECT: Burner Line Gaskets Suspected of Having Asbestos

FILE: 43.5800, IGS91-3

Contract work done by T&B to change out Unit 1 burner line restrictors uncovered gaskets suspected of containing asbestos.

On Wednesday April 15, T&B suspected certain restrictor gaskets as being asbestos and requested coordination between Dan Firth of T&B and our Safety department to determine the gasket composition. Our safety department sent a first sample of gasket material from the G5 restrictor to a local laboratory.

On Thursday April 16, while waiting for test results, we contacted B&W for documentation regarding all gaskets used in the burner lines. The documentation received from B&W confirmed a B&W shop order found in the CMOB, that all burner line gaskets were specified as Garlock Therma-sil, a fiberglass woven material. With that information, T&B resumed restrictor work approximately 1:00 that same day.

The first test results received late afternoon of the 16th indicated 60 - 70 percent asbestos. T&B was notified of the results and they promptly stopped work. To confirm the first test results, a second sample was taken again from the G5 restrictor, various F burner isolation valve flanges, and dust samples from 6th floor and the turbine deck the evening of the 16th and delivered to a different lab early friday April 17.

The second test results was received about 10:00 am friday morning and indicated no asbestos in the dust samples and burner isolation gate gasket material but reported 30 - 40 percent asbestos in the restrictor gaskets. With that information, burner elbow preparation continued but restrictor changeouts were stopped. A disposal consultant from JBR arrived on site about 5:00 pm and supervised the gasket removal on burner line flanges G5, D1, and D4, and five spools. We were notified by the environmental group that removal consisted of wetting down all gasket material, scraping and capturing all material on the flanges.

A letter to B&W will be prepared to request asbestos abatement from all suspected IGS restrictors.

OPERATIONS CREW 22 **SHIFT STATUS REPORT**
ATTENTION: ROBERT A. DAVIS **ASSIST.SUPT.: GEORGE CROSS**

REPORTING PERIOD: 0700 04/16/92 TO 1900 04/16/92
THURSDAY DAY SHIFT

UNIT 1

Unit off line for scheduled SIR.

0700 Turbine lube oil in service. CCCW in service. Main bank clearanced. Aux load fed from unit 2. Annunciator out of service for modification.

Note: Main turbine lube oil was taken out of service for full flow filter work. Doble testing has begun on the main bank transformers and should be completed on 4/17. All new burner assemblies are in place.

Note: Late in the shift it was made known that there existed a problem with some of the gaskets on the coal pipes that contain asbestos.

AQCS UNIT ONE

End of shift status:

UNIT TWO

End of shift status:
1. "A" Condensate pump, running 5.5 mils vibration, "C" 4.5 mils.
2. Reserve Auxiliary Transformer #2 - out of service for repairs.
3. "B" mill oos with broken loading rope.
4. Stator cooling water conductivity probe is bad.

0700 Unit at 776 MW, AGC, variable pressure.

Note: Bid was confirmed to take the unit off line at 0000 hours to repair EHC leak. Kelsey's crew will do the work. Material is staged.

AQCS UNIT TWO

Equipment status:

1. **Compartments: C16, out of service gate problems. B01 O/S leaks, C11, out of service with gate problems. C13 O/S top gate failure.**
2. **"F" module, drained for clearance.**
3. **Unit 2 flyash LOI: no sample reported.**
4. **"D" UPS in bypass, bad batteries.**
6. **1A H.P. spray pump inboard bearing running hot-not running that module and maintenance will inspect the bearing.**

CONVERTER STATION/ECC

1. **Pole #1 out of service for SIR.**
2. **Unit one main bank and tie-line clearanced.**

Note: Doble testing in progress on the U-1 main transformer today.

COAL CONTROL

End of shift equipment status:

//// Train 92-13/ at incoming milepost.
//// 1st car dumped
//// Last car dumped
//// ETA to outgoing milepost.

//// Train 92-135 at incoming milepost.
//// 1st car dumped.
//// Last car dumped.
//// ETA to outgoing milepost.

Note: Until further notice, all Savage trucks loaded out from Genwal will be dumped on the coal pile.

LIMESTONE PREPARATION

End of shift equipment status:

1700 Tank levels, "A" 27' "B" 31' density "A" "B" 38%

WATER TREATMENT

End of shift equipment status:
1. "B" SCU - out of service for modification work.

1700 Demin. Water Storage Tank levels: "A" 28' "B" 38'

SLUDGE CONDITIONING

End of shift equipment status:
1. The "B" silo is for Pozzolanic.
2. 1B2 flyash feeder O/S bad motor/card.

1700 Density 48% Flyash Silo levels "A" 3 ports "B" 2 ports.

OUTSIDE

End of shift equipment status:
1. 1 DMAD pump in service as per Tech Services Dept.

1700 Fuel Oil Tank Levels:	**A- 18 10 7/8"**	**B- 18' 1 1/2"**
Gallons:	**A- 416,766**	**B- 399,714**

REPORT END

OPERATIONS CREW 23 **SHIFT STATUS REPORT**
ATTENTION: ROBERT A. DAVIS **ASSIST.SUPT.: KEN LEBBON**

REPORTING PERIOD: 1900 04/16/92 TO 0700 04/17/92
FRIDAY NIGHT SHIFT

UNIT 1

Unit off line for scheduled SIR.

1900 Turbine lube oil out. CCCW in service. Main bank clearanced. Aux load fed from unit 2. Annunciator out of service for modification.

Note: Samples of air near work that was done on asbestos gaskets has been taken and sent to a lab in Salt Lake.

AQCS UNIT ONE

End of shift status:

UNIT TWO

End of shift status:
1. "A" Condensate pump, running 5.5 mils vibration, "C" 4.5 mils.
2. Reserve Auxiliary Transformer #2 - out of service for repairs.
3. "B" mill oos with broken loading rope.
4. Stator cooling water conductivity probe is bad.

1900 Unit at 840 MW, AGC, variable pressure.

2245 Started ramping down in load with ECC approval to take unit off line for ECC leak repair.

0052 Generator off line on reverse power.

0055 EHC clearance is hung and work is in progress. Maintenance had problems with the wrong "o" ring first and then the pressure fitting would not hold. That fitting is in fact still weeping a small amount and may have to be replaced eventually.

0337 Reset and rolled the main turbine. Oil trip test successful at 3439 RPM.

0358 Synched on the line and established initial load. Started ramping toward 300 MW at ECC request. Had some trouble with control of the 502 valve but I&C brought it back just in time for loading.

0438 Boiler turbine automated and baghouse in service.

0457 Unit in AGC at ECC request and 300-380 MW load window.

0552 ECC load window to 380-480 MW.

AQCS UNIT TWO

Equipment status:

1. Compartments: C16, out of service gate problems. B01 O/S leaks, C11, out of service with gate problems. C13 O/S top gate failure.
2. "F" module, drained for clearance.
3. Unit 2 flyash LOI: no sample reported.
4. "D" UPS in bypass, bad batteries.
6. 1A H.P. spray pump inboard bearing running hot-not running that module and maintenance will inspect the bearing.

CONVERTER STATION/ECC

1. Pole #1 out of service for SIR.
2. Unit one main bank and tie-line clearanced.

COAL CONTROL

End of shift equipment status:

1830 Train 92-136 at incoming milepost.
1910 1st car dumped
2032 Last car dumped
2055 ETA to outgoing milepost.

0405 Train 92-137 at incoming milepost.
0437 1st car dumped.
0600 Last car dumped.
0625 ETA to outgoing milepost.

Note: Until further notice, all Savage trucks loaded out from Genwal will be dumped on the coal pile.

LIMESTONE PREPARATION

End of shift equipment status:

0500 Tank levels, "A" 27' "B" 30' density "A" "B" 35%

WATER TREATMENT

End of shift equipment status:
1. "B" SCU - out of service for modification work.

0500 Demin. Water Storage Tank levels: "A" 33' "B" 38'

SLUDGE CONDITIONING

End of shift equipment status:
1. The "B" silo is for Pozzolanic.
2. 1B2 flyash feeder O/S bad motor/card.

0500 Density 43% Flyash Silo levels "A" 3 ports "B" 2 ports.

OUTSIDE

End of shift equipment status:
1. 1 DMAD pump in service as per Tech Services Dept.

0500 Fuel Oil Tank Levels:	A- 18' 8"	B- 18' 1 1/2"
Gallons:	A- 411,516	B- 399,714

REPORT END

OPERATIONS CREW 24 **SHIFT STATUS REPORT**
ATTENTION: ROBERT A. DAVIS **ASSIST.SUPT.: BOYD COWLEY**

REPORTING PERIOD: 0700 04/17/92 TO 1900 04/17/92
FRIDAY DAY SHIFT

UNIT 1

0700 Unit off line for scheduled SIR. Turbine off gear, main electrical bank is clearanced. Alarm annunciator is out of service for modification.

0703 Air sample tests that were taken near the U-1 burner gasket removal work showed no sign of air born asbestos (.003 fibers/ml). We are still waiting on the dust sample test results.

0945 Lab tests on the burner front dust samples did not show any asbestos problems. However test results did show asbestos was used in the gasket material on the coal pipe restrictor flanges. A consultant will be on site later today to help remove and contain the material from these gaskets.

1600 Asbestos consultant is on site. It is estimated the removal may be complete tonight.

AQCS UNIT ONE

End of shift status:

UNIT TWO

End of shift status:
1. "A" Condensate pump, running 5.5 mils vibration, "C" 4.5 mils.
2. Reserve Auxiliary Transformer #2 - out of service for repairs.
3. "B" mill oos with broken loading rope.
4. Stator cooling outlet conductivity probe, oos.

0630 Unit at 530 MW, AGC, variable pressure.

0654 AGC load limits 620-740 MWG.
0718 AGC load limits 740-840 MWG.

1100 1 barrel of Electro-Hydraulic Control (EHC) fluid has been added to the reservoir, bringing the level to 1" high. The leak on the pressure fitting that feeds the filter system is down to a slow drip and should not cause to much trouble.

1300 Boiler blowdown closed.

1400 The Standby BFP oil system has been shut down due to an oil leak on the pump inboard bearing seal. Work is scheduled for 4-7.

1600 Work continues on the U-2 boiler area sump pump discharge line that is leaking behind Lime Prep. Two portable sump pumps are in use.

AQCS UNIT TWO

Equipment status:

1. Compartments: A15, damper problems. B01, B14, EQ line leaks.,
2. "F" module, drained for clearance.
3. Unit 2 flyash LOI: no sample reported.
4. "D" UPS in bypass, bad batteries.
5. 1A H.P. spray pump inboard bearing running hot-not running that module and maintenance will inspect the bearing.

CONVERTER STATION/ECC

1. Pole #1 out of service for SIR.
2. Unit one main bank and tie-line clearanced.
3. U-2 345 KV breaker E-93, oos for maint.

COAL CONTROL

End of shift equipment status:

//// Train 92-/// at incoming milepost.
//// 1st car dumped
//// Last car dumped
//// ETA to outgoing milepost.

Note: The dusting problem with the Savage trucks loaded out from Genwal mine has been addressed and we are dumping them on the truck grizzly like normal. We are also maintaining the truck unloading hopper 1/2 full to help with the dusting problem.

LIMESTONE PREPARATION

End of shift equipment status:

1700 Tank levels, "A" 29' "B" 27' density "A" header oos "B" 35%

WATER TREATMENT

End of shift equipment status:
1. "B" SCU - out of service for modification work.
2. "A" Scrubber makeup tank, inspection - repair.

1700 Demin. Water Storage Tank levels: "A" 37' "B" 38'

SLUDGE CONDITIONING

End of shift equipment status:
1. The "B" silo is for Pozzolanic.
2. 1B2 flyash feeder O/S bad motor/card.

1700 Density 48% Flyash Silo levels "A" 4 ports "B" 2 ports.

OUTSIDE

End of shift equipment status:
1. 1 DMAD pump in service as per Tech Services Dept.

1700 Fuel Oil Tank Levels:	A- 18' 6.5"	B- 18' 1 1/2"
Gallons:	A- 407,904	B- 399,714

OPERATIONS CREW 23 SHIFT STATUS REPORT
ATTENTION: ROBERT A. DAVIS ASSIST.SUPT.: KEN LEBBON

REPORTING PERIOD: 1900 04/17/92 TO 0700 04/18/92
SATURDAY NIGHT SHIFT

UNIT 1

1900 Unit off line for scheduled SIR. Turbine off gear, main electrical bank is clearanced. Alarm annunciator is out of service for modification.

1030 Asbestos dust clean-up is complete with good results.

AQCS UNIT ONE

End of shift status:

UNIT TWO

End of shift status:
1. "A" Condensate pump, running 5.5 mils vibration, "C" 4.5 mils.
2. Reserve Auxiliary Transformer #2 - out of service for repairs.
3. "B" mill oos with broken loading rope.
4. Stator cooling outlet conductivity probe, oos.

0700 Unit at 840 MW, AGC, variable pressure.

0303 Completed weekly equipment tests and changes and valve tests.

0505 "A" boiler feed pump tripped while performing overspeed test due to a blown fuse on control power.

0506 Unit trip, low drum level.

0514 Purge in progress.

0529 Main boiler fire established.

0542 Rolling main turbine. Oil trip test successful at 3425 RPM.

0558 Main generator synch. Established initial load.

0600 Load increasing to 300 MW at ECC request.

AQCS UNIT TWO

Equipment status:
1. Compartments: A15, damper problems. B01, B14, EQ line leaks.,
2. "F" module, drained for clearance.
3. Unit 2 flyash LOI: no sample reported.
4. "D" UPS in bypass, bad batteries.
5. 1A H.P. spray pump inboard bearing running hot-not running that module and maintenance will inspect the bearing.

CONVERTER STATION/ECC

1. Pole #1 out of service for SIR.
2. Unit one main bank and tie-line clearanced.
3. U-2 345 KV breaker E-93, oos for maint.

COAL CONTROL

End of shift equipment status:

2025 Train 92-138 at scale. Train didn't call at mile post.
2046 1st car dumped
2230 Last car dumped
2255 ETA to outgoing milepost.

Note: The dusting problem with the Savage trucks loaded out from Genwal mine has been addressed and we are dumping them on the truck grizzly like normal. We are also maintaining the truck unloading hopper 1/2 full to help with the dusting problem.

LIMESTONE PREPARATION

End of shift equipment status:

0500 Tank levels, "A" 27' "B" 27' density "A" header oos "B" 32%

WATER TREATMENT

End of shift equipment status:
1. "B" SCU - out of service for modification work.
2. "A" Scrubber makeup tank, inspection - repair.

0500 Demin. Water Storage Tank levels: "A" 37' "B" 35'

SLUDGE CONDITIONING

End of shift equipment status:
1. The "B" silo is for Pozzolanic.
2. 1B2 flyash feeder O/S bad motor/card.

0500 Density 41% Flyash Silo levels "A" 4 ports "B" 2 ports.

OUTSIDE

End of shift equipment status:
1. 1 DMAD pump in service as per Tech Services Dept.

0500 Fuel Oil Tank Levels:	A- 18' 6 1/4"	B- 18' 1 1/2"
Gallons:	A- 408,366	B- 399,714

REPORT END

DATA CHEM LABORATORIES

ANALYTICAL REPORT

Form ARF-AL
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Part 1 of 1

Date 04/17/92
Agency Identification Number 92-0995
Account No. 03015

IPSC
850 Brushwellman Road
Delta, UT 84624-9546
Attention: Terry Nay

FAX
Telephone (801) 864-4414

Sampling Collection and Shipment

Sampling Site _____ Date of Collection April 16, 1992

Date Samples Received at Laboratory April 16, 1992

Analysis

Method of Analysis NIOSH 9002, PCM

Date(s) of Analysis April 17, 1992

Analytical Results

Field Sample Number	Laboratory Number	Sample Type	Asbestiform Fibers/Filter	Asbestiform Fibers/mL	Air Volume Liters	Chrysotile % Asbestos	Amosite % Asbestos	Crocidolite % Asbestos	Actinolite/ Tremolite % Asbestos	Anthophyllite % Asbestos	
1	CM 06653	FILTER	<3000	<0.003	1047.3	NR	NR	NR	NR	NR	
2	CM 06654	FILTER	<3000	<0.003	1031.8	NR	NR	NR	NR	NR	
3	CM 06655	FILTER	<3000	<0.003	944	NR	NR	NR	NR	NR	
4	CM 06656	FILTER	<3000	<0.003	972.8	NR	NR	NR	NR	NR	
5	CM 06657	BULK	NR	NR	NR	ND	ND	ND	ND	ND	
6	CM 06658	BULK	NR	NR	NR	ND	ND	ND	ND	ND	
7	CM 06659	BULK	NR	NR	NR	ND	ND	ND	ND	ND	
8	CM 06660	BULK	NR	NR	NR	30-<40	ND	ND	ND	ND	
9	CM 06661	BULK	NR	NR	NR	ND	ND	ND	ND	ND	
10	CM 06662	BULK	NR	NR	NR	ND	ND	ND	ND	ND	
Limit of Detection			3000			NA	NA	NA	NA	NA	

* See comment on last page.
ND Parameter not detected.
NR Parameter not requested.

** See comment on last page.
( ) Parameter between LOD and LOQ.

Analyst: Group

Reviewer: Julie Turpin

Laboratory Supervisor: Patricia A. Klinger

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A Sorenson Company

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REPORT

ANALYSIS OF FILTER SAMPLES FOR ASBESTIFORM FIBERS

Asbestiform fibers were counted according to "NIOSH Method 7400/Modified by Differential Counting". The specified number of filter blanks required in the 7400 method were not submitted with this sample set. Polarized light microscopy was used to eliminate non-crystalline fibers greater than 1μm in diameter from the fiber count. Fibers with a minimum length of 5 micrometers were counted using a phase contrast microscope. The microscope is equipped with a 40x objective and a 10x eyepiece containing a Walton-Beckett graticule.

A minimum of 100 fibers in 20 fields or a maximum of 100 fields were counted per sample and the average fibers per field calculated.

The limit of detection is 7 fibers/mm^2 or 3000 fibers/filter for a 25mm diameter filter. The following calculation is performed to obtain a fiber/mL value.

$$\frac{\text{Fibers/Filter}}{(\text{Sample Vol. L})(1000)} = \text{Fibers/mL}$$

Values in fibers/mL may differ according to varying sample volumes.

The analyses are not field blank corrected.

The results are tabulated on the following page(s).

Rand Potter

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ANALYTICAL REPORT

ANALYSIS OF BULK SAMPLES FOR ASBESTOS

All samples were examined for homogeneity. Non-homogeneous samples were ground to insure homogeneity.

The samples were prepared and examined for asbestos fibers utilizing the NIOSH 9002 method procedures. A polarizing light microscope equipped with a 10x and a 16x objective and a 10x eyepiece was used for the analysis.

The percentage of asbestos was estimated microscopically by a visual examination of the fibers with an aspect ratio of 3:1 or greater. If present, asbestos identities were confirmed with the appropriate refractive index liquids applying dispersion staining techniques.

The results are tabulated on the following page(s).

Rand Potter

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